

Dehydration Prestart up

Potential Hazards:

Possibility of pressuring up the system if valve alignment is not correct

Precautions to take:

Steps must be correct

Safety systems in place:

Pressure Relief valves in place

Conduct a prestart up safety review of the Dehydration and Acid Reduction Systems

Complete and close out all maintenance and hot work permits.

Complete the lock/tag out list.

Inspect piping and vessels in the area to check for mechanical integrity.

Place all control loops in Manual at zero valve output on the DCS.

Ensure that all utilities are commissioned and available.

Close all manual drain valves, CIP valves

Open all manual instrumentation block valves.

Dehydration Startup Valve Alignment

1. Prior to the startup of Distillation, ENSURE that Mole sieve Bed Sequence and control valves are functioning properly. Start the Mole sieve Bed sequence through the DCS System and allow the sequence to run through a complete cycle in each bed, and then stop the sequence. Do not allow vapor from Distillation to enter the vessels.
2. Align Regeneration Pump valves
 - a. Open V-43121 Regen Receiver outlet valve
 - b. Open V-43159 Regen Pump discharge valve
3. Align Regeneration Cooler Valve
 - a. Close V-43118 Regen Cooler bypass valve
 - b. Open V-43124 Regen Cooler inlet valve
 - c. Open V-43125 Regen Cooler outlet valve
 - d. Open V-43113 Regen Cooler cooling water supply valve
 - e. Open V-43111 Regen Cooler cooling water return valve
4. Align Regen Filter Valves
 - a. Open V-43127 Regen Filter #1 inlet valve



- b. Open V-43126 Regen Filter #1 outlet valve
 - c. Close V-43164 Regen Filter #2 inlet valve
 - d. Close V-43162 Regen Filter #2 outlet valve
5. Ensure the correct seal flush system alignments for PC-4303 Regen Pump, seal pot level and pressure.
6. Align Regen Preheater valves
 - a. Open V-43165 Regen Preheater shell side outlet valve
 - b. Open V-43148 DD&E Condensate Preheater shell side inlet valve
 - c. Open V-43108 DD&E Condensate Preheater shell side outlet valve
 - d. Close V-43149 DD&E Condensate Preheater bypass valve
7. Align Regen Vacuum Condenser valves
 - a. Open V-43144 Regen Vacuum Condenser cooling water supply valve
 - b. Open V-43147 Regen Vacuum Condenser cooling water return valve
 - c. Close V-43137 Regen Vacuum Condenser cooling water bypass valve
8. Ensure closed TV-43106 Superheater inlet steam supply temperature valve
9. Open an upstream low point bleed line valve on the steam supply line to the Superheater to remove cold condensate from the line.
10. Close low point bleed valve when steam comes from the opening.
11. Open V-43116 Superheater steam supply valve.
12. Open the Superheater Steam Trap condensate inlet valve
13. Open the Superheater steam trap condensate outlet valve
14. Place TR-4301 Superheater steam trap in service
15. Ensure Vent gas Scrubbing System is ready to receive flow.

Cycle the Dehydration control valves completely through at least two cycles verifying full range of motion and correct opening and closing sequencing for all valves